

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/23/99

Date Received: 08/12/99

Project: Metro Self Monitor, PO# M62437

Date Samples Extracted: 08/16/99

Date Extracts Analyzed: 08/17/99

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC
USING METHOD 6010**

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M62437	0.20	0.18	0.11	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 908025-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	6.9	7.2	4	0-20
Copper	mg/L (ppm)	0.30	0.36	18	0-20
Nickel	mg/L (ppm)	0.15	0.16	6	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 908025-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	6.9	112	80	80-120	33vo
Copper	mg/L (ppm)	5	0.30	97	95	80-120	2
Nickel	mg/L (ppm)	10	0.15	106	96	80-120	10
Zinc	mg/L (ppm)	5	<0.05	101	102	80-120	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	105	105	80-120	0
Copper	mg/L (ppm)	5	104	103	80-120	1
Nickel	mg/L (ppm)	10	107	106	80-120	1
Zinc	mg/L (ppm)	5	108	108	80-120	0

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

vo - The value reported fell outside the control limits established for this analyte.

mm 8.12.99 AI

SAMPLE CHAIN OF CUSTODY

Company Alaskan Copper works Contact Genel Thompson
Address 628 HANSON ST
City, State, Zip SEASIDE WA 98134
Phone # (206) 382-8329 FAX # (206) 782-4709 Date 8-12-99

REMARKS

SIGNATURE

Relinquished by

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

August 23, 1999

DUPLICATE COPY

INVOICE #99ACU0823-1

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M62437: Results of testing requested
by Gerry Thompson for material submitted on August 12, 1999.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$80 per sample

\$ 80.00

Amount Due

\$ 80.00

PLEASE NOTE: As a convenience for our valued clients, we can accept credit cards (VISA, MasterCard or government purchasing cards) for payment on our invoices. Please contact our office if you would like to take advantage of this service.

FEDERAL TAX ID (b) (6)

FRIEDMAN & BRUYA, INC.

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Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

August 23, 1999

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

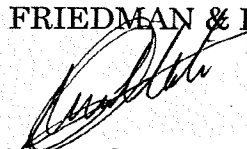
Dear Mr. Thompson:

Included are the results from the testing of material submitted on August 12, 1999 from your Metro Self Monitor, PO# M62437 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Manuel Marti
Project Manager

Enclosures
ACU0823R.DOC